

DESIGN GUIDELINES APPROVED FOR USE IN DESIGNING WATER CROSSINGS OVER FISH-BEARING WATERS IN WASHINGTON STATE

Forest Practices Board Manual, Section 5 Guidelines for Forest Practices Hydraulic Projects¹

Notes for appropriate use to comply with WAC 220-660-190

May 21, 2015

In 2012 the Legislature transferred the authority to permit hydraulic projects from the Dept. of Fish and Wildlife to the Dept. of Natural Resources under the Forest Practices Application. DNR adopted into its **Forest Practices Board Manual** fish protection standards from existing WDFW guidelines; the 2003 **Design Road of Culverts for Fish Passage** (now superseded), and the later 2013 **Water Crossing Design Guidelines²** (WCDG). Most of the material in Sec 5 complies with WAC 220-660-190 and DNR will update Sec 5 as new guidance and rule is adopted. We recommend the use of Sec 5 for the design of water crossings, although simply using the WCDG would be a better way to go about it since all of the information required for design is set out in the various chapters – including chapters on measuring bankfull width, site and construction considerations, the design of tidal crossings and many other topics.

¹ WADNR (2013). **Forest Practices Board Manual**, Section 5 Guidelines for Forest Practices Hydraulic Projects. Washington Dept. of Natural Resources, Olympia, WA. 60 p.

² Barnard RJ, Johnson J, Brooks P, Bates KM, Heiner B, Klavas JP, Ponder DC, Smith PD, Powers PD. 2013. **Water Crossings Design Guidelines**. Washington Department of Fish and Wildlife: Olympia, Washington.